

## SEQUENCE PROTOCOL

<110> Rhein Biotech Gesellschaft für neue biotechnologische Prozesse  
und Produkte mbH

<120> Nucleic acid molecule, comprising a nucleic acid coding for a  
polypeptide with chorismate mutase activity

<130> P30558-01996

<140>

<141>

<160> 3

<170> PatentIn Ver. 2.1

<210> 1

<211> 843

<212> DNA

<213> Hansenula polymorpha

<400> 1

```

atggacttta tgaagccaga aacagtgtgt gaccttggca acattagaga tgccttggtc 60
cgatggagg atacgatcat cttcaacttt atcgagcggc cgcagttcta tgcgtcgccc 120
tcggtataca aagtcaacca gttccctatt cccaacttcg acggctcggt cttggactgg 180
ctgttgtcgc agcagcagcg aatccattcg caggtgagga gatacgacgc gccagacgag 240
gtgccttttt tccccaacgt gctggaaaaa acgtttctgc ccaagatcaa ctacccatcg 300
gtgctagcct cctacgcgga tgaaatcaac gtcaacaaag agatactcaa gatctacacg 360
tcagagatag taccaggaat agctgcaggc agcggagagc aggaggacaa ccttggctcg 420
tgcgcaatgg ccgacatcga gtgcctgcag tcgctatcca gaagaatcca ttttggccgt 480
tttgtcgcag aggcctaaatt tatcagtgtg ggggacaaga ttgtggatct gatcaaaaag 540
agagatgtgg aaggcattga ggcgctcatc acaaacgccg aggtcgaaaa acggatcttg 600
gacagacttc tggagaaggg aaggcgctat ggaacagacc cgacactaaa gttcacgcag 660
cacattcaga gcaaggtgaa gcccgaggtg attgtgaaaa tctacaagga tttcgtgatt 720
ccgctcacga agaaggtcga agtcgactac ttgctgagac ggctggagga cgaggaggac 780
gatgatgcga cgcagaaaag cggcggtctac gttgaccggt ttctctcttc tggcttgtac 840
tag

```

<210> 2

<211> 280

<212> PRT

<213> Hansenula polymorpha

<400> 2

```

Met Asp Phe Met Lys Pro Glu Thr Val Leu Asp Leu Gly Asn Ile Arg
1          5          10          15

```

```

Asp Ala Leu Val Arg Met Glu Asp Thr Ile Ile Phe Asn Phe Ile Glu
20          25          30

```

```

Arg Ser Gln Phe Tyr Ala Ser Pro Ser Val Tyr Lys Val Asn Gln Phe
35          40          45

```

```

Pro Ile Pro Asn Phe Asp Gly Ser Phe Leu Asp Trp Leu Leu Ser Gln
50          55          60

```

```

His Glu Arg Ile His Ser Gln Val Arg Arg Tyr Asp Ala Pro Asp Glu

```

65 70 75 80  
 Val Pro Phe Phe Pro Asn Val Leu Glu Lys Thr Phe Leu Pro Lys Ile  
 85 90 95  
 Asn Tyr Pro Ser Val Leu Ala Ser Tyr Ala Asp Glu Ile Asn Val Asn  
 100 105 110  
 Lys Glu Ile Leu Lys Ile Tyr Thr Ser Glu Ile Val Pro Gly Ile Ala  
 115 120 125  
 Ala Gly Ser Gly Glu Gln Glu Asp Asn Leu Gly Ser Cys Ala Met Ala  
 130 135 140  
 Asp Ile Glu Cys Leu Gln Ser Leu Ser Arg Arg Ile His Phe Gly Arg  
 145 150 155 160  
 Phe Val Ala Glu Ala Lys Phe Ile Ser Glu Gly Asp Lys Ile Val Asp  
 165 170 175  
 Leu Ile Lys Lys Arg Asp Val Glu Gly Ile Glu Ala Leu Ile Thr Asn  
 180 185 190  
 Ala Glu Val Glu Lys Arg Ile Leu Asp Arg Leu Leu Glu Lys Gly Arg  
 195 200 205  
 Ala Tyr Gly Thr Asp Pro Thr Leu Lys Phe Thr Gln His Ile Gln Ser  
 210 215 220  
 Lys Val Lys Pro Glu Val Ile Val Lys Ile Tyr Lys Asp Phe Val Ile  
 225 230 235 240  
 Pro Leu Thr Lys Lys Val Glu Val Asp Tyr Leu Leu Arg Arg Leu Glu  
 245 250 255  
 Asp Glu Glu Asp Asp Ala Thr Gln Lys Ser Gly Gly Tyr Val Asp  
 260 265 270  
 Arg Phe Leu Ser Ser Gly Leu Tyr  
 275 280

<210> 3  
 <211> 1655  
 <212> DNA  
 <213> Hansenula polymorpha

<220>  
 <221> gene  
 <222> (1) ..(1655)  
 <223> 1,8 kb genomic DNA-fragment from Hansenula  
 polymorpha

<400> 3  
 cccggcccaa tgccagcaat atggagacgt ttaggcagaa taggcgttcc atacttctca 60  
 cgctgcttgt tgccaccgga atatacaccg cattgcagtt tgcacacatc atactatatg 120  
 acgattacat tggcggaacg tatcgcgagt cgctcacgag acgcattaga atgacagaga 180  
 aatcgcgaaa cgaccttata gacgcacgtg aaaactacgg gtttgaggagc agcaaggagg 240

agcgaatcca	gcggtttttg	tggttcagac	atctttcgtg	gcttttaggc	gaggataagc	300
gaacttgagg	agcgtttttt	ttttcctggt	tagtttttgt	aggtaggac	ttttagaagc	360
cagaaacagt	gctggacctt	ggcaacatta	gagatgcctt	ggtccggatg	gaggatacga	420
tcatcttcaa	ctttatcgag	cggtcgcagt	tctatgcgtc	gccctcggtg	tacaaagtca	480
accagttccc	tattcccaac	ttcgacggct	cgttcttggg	ctggctgttg	tcgcagcacg	540
agcgaatcca	ttcgcagggt	aggagatacg	acgcgccaga	cgagggtgct	tttttcccca	600
acgtgctgga	aaaaacgttt	ctggccaaga	tcaactaccc	atcgggtgcta	gcctcctacg	660
cggatgaaat	caacgtcaac	aaagagatac	tcaagatcta	cacgtcagag	atagtaccag	720
gaatagctg	aggcagcgga	gagcaggagg	acaaccttgg	ctcgtgcgca	atggccgaca	780
tcgattgcct	gcagtcgcta	tccagaagaa	tccatttttg	ccgttttgtc	gcagaggcta	840
aatttatcag	tgagggggac	aagattgtgg	atctgatcaa	aaagagagat	gtggaaggca	900
ttgaggcgct	catcacaac	gccgaggtcg	aaaaacggat	cttggaacaga	cttctggaga	960
agggaagggc	gtatggaaca	gacccgacac	taaagttcac	gcagcacatt	cagagcaagg	1020
tgaagcccga	ggtgattgtg	aaaatctaca	aggatttcgt	gattccgctc	acgaagaagg	1080
tcgaagtcca	ctacttgctg	agacggctgg	aggacgagga	ggacgatgat	gcgacgcaga	1140
aaagcggcgg	ctacgttgac	cggtttctct	cctctggcct	gtactagaaa	ttaaaatttt	1200
cagtacttta	attattctcg	aatttctagtt	catagaccgc	atggtaattt	caaaggccag	1260
aaaagtggcc	gcgttggtcg	gggcagctct	cagaatagtc	ggcgagaatc	ctttgactag	1320
cccccaggca	ccgctctgtc	tccaaatacc	cctaatagtc	tcaacagcat	ttctataaac	1380
cagcttcttg	tagttgtccg	tctgcatggt	ggacttgatc	acatcgatcg	gataaatact	1440
gaaccacatc	ccgtaacctg	ccagcgcccc	aaagacgcag	agcttccagt	tctcgatgtc	1500
cttctctggc	atattccgcg	actcgatctc	gtttttcacg	agagcttcaa	aagtcagaaa	1560
atacgtccg	ctacccaac	tttctcttgc	cagcgtaggt	cccagacccc	ggtagattaa	1620
ctttagtgct	cccgtatggt	acagcttctt	gatcc			1655